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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,406	02/13/2002	Udaya Bhaskar	PD-202004	3985
7590	02/10/2005		EXAMINER	
Hughes Electronics Corporation Patent Docket Administration Bldg- 1, Mail Stop A109 P.O. Box 956 El Segundo, CA 90245-0956			AZAD, ABUL K	
			ART UNIT	PAPER NUMBER
			2654	
DATE MAILED: 02/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/073,406	Applicant(s) BHASKAR ET AL.	
	Examiner ABUL K. AZAD	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/15/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-6 are pending in this Office Action.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. 10/073,423. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant applicant claims 1-6 broadens the scope of claims 1-22 of copending Application No. 10/073,423 by eliminating some limitations.

It has been held that Omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd. App. 1969); the

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omission of a reference element whose function is not needed would be obvious to one of ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Choy et al. (US 6,324,505).

As per claim 1, Choy teaches, “a frequency domain interpolative CODEC system for low bit rate coding of speech”, comprising:

“a linear prediction (LP) front end adapted to process an input signal providing LP parameters which are quantized and encoded over predetermined intervals and used to compute a LP residual signal” (col. 7, line 60 to col. 8, line 27);

“an open loop pitch estimator adapted to process said LP residual signal, a pitch quantizer, and a pitch interpolator and provide a pitch contour within the predetermined intervals” (col. 7, line 60 to col. 8, line 27);

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“a voice activity detector adapted to process said LP parameters and said open loop pitch contour over said predetermined intervals” (col. 8, lines 33-52); and

“a signal processor responsive to said LP residual signal and the pitch contour and adapted to perform the following: extract a prototype waveform (PW) from the LP residual and the open loop pitch contour for a number of equal sub-intervals within the predetermined intervals” (col. 10, lines 25-32);

“normalize the PW by a gain value of said PW” (col. 10, line 45 to col. 11, line 28);

“encode a magnitude of said PW” (col. 12, line 46 to col. 14, line 30); and

“provide a voicing measure, said voicing measure characterizing a degree of voicing of said input speech signal and is derived from several input parameters that are correlated to degrees of periodicity of the signal over the predetermined intervals, said voicing measure being provided for the purpose of: regenerating a PW phase at a decoder; and providing improved quantization of the PW magnitude at an encoder” (col. 12, line 46 to col. 14, line 30).

As per claim 2, Choy teaches, “wherein said predetermined interval comprises a frame” (col. 10, lines 25-32, here patent 5,884,253 teaches details).

As per claim 3, Choy teaches, “wherein said frame is preferably 20 ms” (col. 10, lines 25-32, here patent 5,884,253 teaches details).

As per claim 4, Choy teaches, “wherein said extraction of said PW sub-frame is preferably performed every 2.5 ms” (col. 10, lines 25-32, here patent 5,884,253 teaches details).

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As per claim 5, Choy teaches, "wherein said voicing measure is encoded jointly with a PW nonstationarity measure using a spectrally weighted vector quantizer with a codebook partitioned based on a voiced/unvoiced mode" (Fig. 8, elements 1306 and 1307).

As per claim 6, Choy teaches, "wherein said voicing measure is computed as the output of a nonlinear transformation having the following inputs an open loop pitch gain; a pitch variance; a low frequency average of the PW nonstationarity measure; a relative signal power; and a PW correlation" (col. 10, line 25 to col. 14, line 30).

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(703) 305-3838**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(703) 305-9645**.

Any response to this action should be mailed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to:

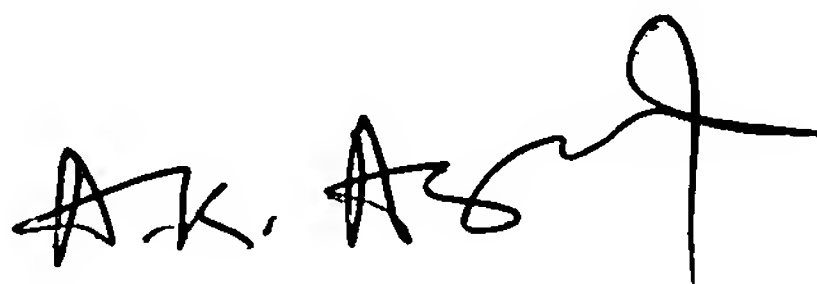
(703) 872-9314

(For informal or draft communications, please label "PROPOSED" or "DRAFT")

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Hand-delivered responses should be brought to 2121 Crystal Drive, Arlington,
VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should
be directed to the Technology Center's Customer Service Office at telephone number
(703) 306-0377.

A handwritten signature in black ink, appearing to read "A.K. Azad", with a stylized flourish at the end.

Abul K. Azad

February 7, 2005